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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/719,721	11/21/2003	Wen-Chi Chien	24061.501	9530
42717	7590	03/27/2006		
HAYNES AND BOONE, LLP 901 MAIN STREET, SUITE 3100 DALLAS, TX 75202			EXAMINER SHECHTMAN, SEAN P	
			ART UNIT 2125	PAPER NUMBER
DATE MAILED: 03/27/2006				

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/719,721

Applicant(s)

CHIEN, WEN-CHI

Examiner

Sean P. Shechtman

Art Unit

2125

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 05 May 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-85 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-85 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 November 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 2/25/04.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_.

### **DETAILED ACTION**

1. Claims 1-85 are presented for examination.

#### ***Drawings***

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: Fig. 3, element 205. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

#### ***Specification***

3. The disclosure is objected to because it contains an embedded hyperlink and/or other form of browser-executable code (See page 2, paragraph 5). Applicant is required to delete the embedded hyperlink and/or other form of browser-executable code. See MPEP § 608.01.

#### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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4. Claims 1-85 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites the limitation "each piece of manufacturing equipment" in lines 10 and 11. There is insufficient antecedent basis for this limitation in the claim.

Claim 1 recites the limitation "said fabrication of product" in lines 15-16. There is insufficient antecedent basis for this limitation in the claim.

Claim 1, line 15, recites the limitation of said manufacturing equipment, however, claim 1 previously requires manufacturing equipment that follows and a current group of manufacturing equipment. Therefore, it is not clear what manufacturing equipment is intended to be referred to by "said manufacturing equipment".

Claim 4 recites the limitation "the threshold level" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim 8 recites the limitation "the queue of..." in line 3. There is insufficient antecedent basis for this limitation in the claim.

Claim 15 recites the limitation "said product" in line 1. There is insufficient antecedent basis for this limitation in the claim.

Claim 17 recites the limitation "the integrated circuit processing equipment" in lines 1-2. There is insufficient antecedent basis for this limitation in the claim.

Claims 18-85 contain the same or similar limitations as claims 1-17, and are therefore also indefinite for the same reasons given above.

Claim 18 recites the limitation "said system" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Referring to claim 18, claims in which both an apparatus and the method steps of using the apparatus is indefinite under 35 USC 112, second paragraph. This type of claim is indefinite because it fails to positively recite the boundaries sought for protection. The metes and bounds of the claim cannot be determined because it is unclear as to which category of subject matter is sought for protection, i.e., the method or the apparatus.

Referring to claim 18, it is unclear how a product lot can process manufacturing equipment.

Claim 35 recites the limitation "said system" in lines 2-3. There is insufficient antecedent basis for this limitation in the claim.

Due to the number of 35 USC § 112 rejections, the examiner has provided a number of examples of the claim deficiencies in the above rejections, however, the list of rejections may not be all inclusive. Applicant should refer to these rejections as examples of deficiencies and should make all the necessary corrections to eliminate the 35 USC § 112 problems and place the claims in proper format.

Due to the vagueness and a lack of clear definition of the terminology and phrases used in the specification and claims, the claims have been treated on their merits as best understood by the examiner.

#### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

5. Claims 1-4, 7-17, 18-21, 24-34, 35-38, 41-51, 52-55, 58-68, 69-72, 75-85 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Pat. No. 6,842,655 to Collins (hereinafter referred to as Collins).

Referring to claims 1-4, 7-17, 18-21, 24-34, 35-38, 41-51, 52-55, 58-68, 69-72, 75-85 Collins teaches a method, system, apparatus, and medium (whole document), comprising:

receiving requests for fabrication of a product lot from an order entry system (Col. 33, line 64 – Col. 34, line 12);

receiving procedures defining which manufacturing equipment is required for said fabrication of said product lot from a process information system (Col. 3, lines 21-22, process steps for product);

receiving a status of said fabrication of said product lot (Col. 3, lines 7-44, lots in queue of current process step or process step completed by each lot prior to entering queue of current process step), a criticality factor for each manufacturing equipment (Col. 6, lines 34-39 and/or Col. 34, lines 66-67 and 45-47, historical average queue size for process step with machine used

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to process the product), and a queue level for each piece of manufacturing equipment that follows a current group of pieces of manufacturing equipment required for said product lot from a manufacturing information system (Col. 3, lines 7-44, the current queue size for the next process step);

calculating a priority factor for said product lot from a listing of said manufacturing equipment required for said fabrication of product (Col. 3, lines 22-23), said criticality factor (Col. 6, lines 34-39), and said queue level (Col. 3, lines 7-44, prioritize which lot is selected for processing),

balancing of loading of each group of pieces of manufacturing equipment following said current group of pieces of manufacturing equipment from said priority factor such that said product lot is processed at an expeditious time for on-time delivery (Col. 34, lines 39-50).

#### ***Allowable Subject Matter***

6. Claims 5, 6, 22, 23, 39, 40, 56, 57, 73, 74 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims. The following is a statement of reasons for the indication of allowable subject matter: Neither Collins nor the prior art of record, taken either alone or in obvious combination disclose method, system, apparatus, and medium for dispatching of at least one product lot for processing to manufacturing equipment within processing stages of a manufacturing line, having all the claimed features of applicant's instant invention, specifically including the calculation of the priority factor using formulae of claims 5, 6, 22, 23, 39, 40, 56, 57, 73, 74.

#### ***Conclusion***

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7. The prior art or art made of record and not relied upon is considered pertinent to applicant's disclosure.

The following patents or publications are cited to further show the state of the art with respect to calculating a priority factor.

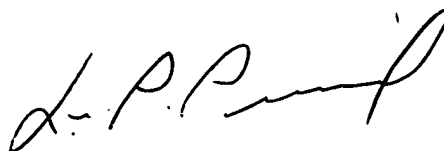
U.S. Pat/Pub. No. 5,751,580 to Chi.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sean P. Shechtman whose telephone number is (571) 272-3754.

The examiner can normally be reached on 9:30am-6:00pm, M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leo P. Picard can be reached on (571) 272-3749. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



SPS

Sean P. Shechtman

March 17, 2006

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